TEXAS INSTRUMENTS
HOME COMPUTER

M*A*S*H is a trademark of 20th Century Fox Film Corporation.

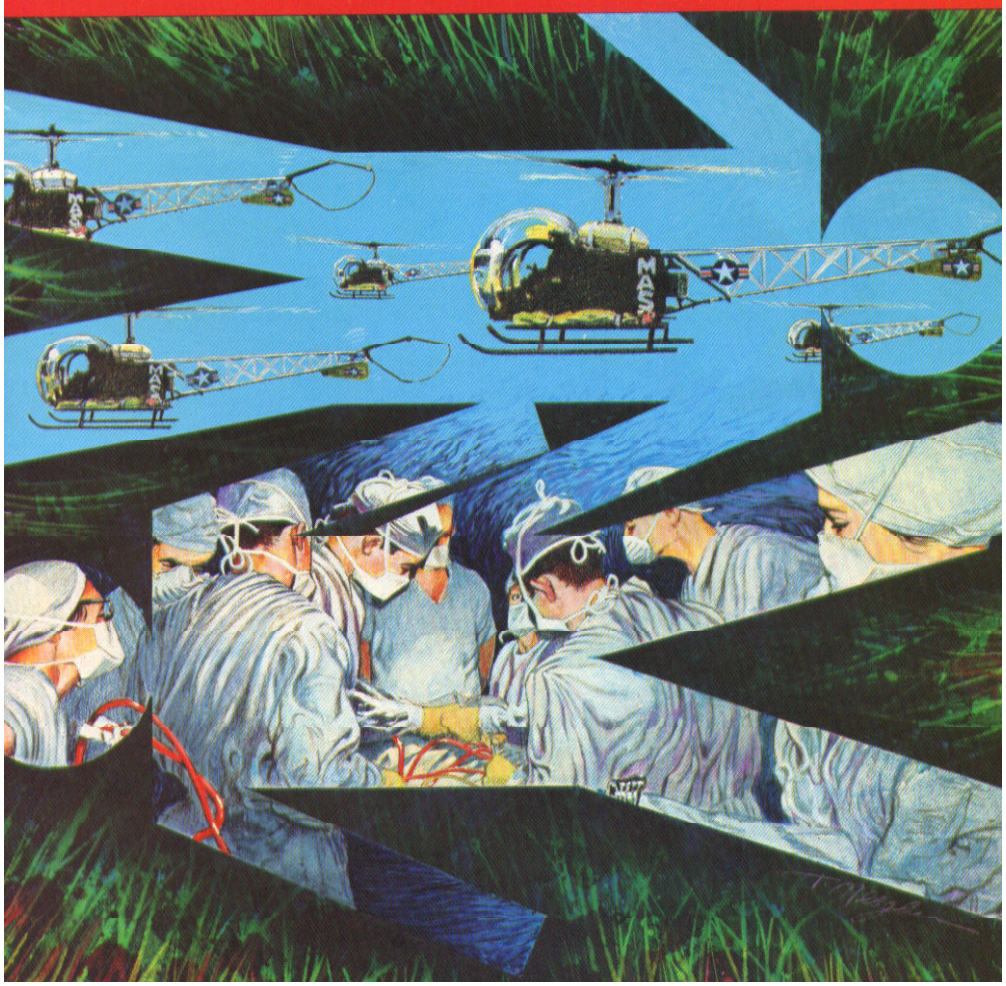
M*A*S*H™

ARCADE ENTERTAINMENT

SOLID STATE SPEECH™ CARTRIDGE

This cartridge is designed to be used only with the Texas Instruments TI-99/4A Home Computer. Optional **Solid State Speech™ Synthesizer** must be attached to the computer to activate the speech capabilities of the cartridge.

Fly your helicopter into battle to rescue wounded soldiers as you evade gunfire from an enemy tank. After the rescue, perform surgery and remove shrapnel from patients in a race against time.



M*A*S*H

Designed by: Dallas North

Programmed by: Paul Munsey
Flora Ng

Voice by: Cliff Easthom

Book developed and written by:
Staff members of Texas Instruments
Instructional Communications.

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M*A*S*H is a trademark of 20th Century Fox Corporation.

Introduction

With M*A*S*H, you face the perils of a Mobile Army Surgical team on the front lines of Korea. Developed for Texas Instruments by Fox Video Inc., the game is based on the popular movie and television series "M*A*S*H" and its characters, Hawkeye and Trapper. The surgeons have assumed new hazardous tasks in this version of M*A*S*H. They not only operate brilliantly to save lives, but also fly to rescue soldiers in the field. You become either Hawkeye or Trapper. You fly bravely into danger to rescue wounded soldiers, or assume a different but equally harrowing role—a surgeon in a Mobile Army Surgical Hospital.

With M*A*S*H, you can

- Play any one of five exciting versions of the game
- Play alone or with a friend
- Use Wired Remote Controllers (joysticks) or keyboard control
- Enjoy graphics that create a 3-D effect
- Use the "Helpful Hints" feature for tips on game play
- Have more fun with synthesized speech that simulates the action, excitement, and humor in M*A*S*H

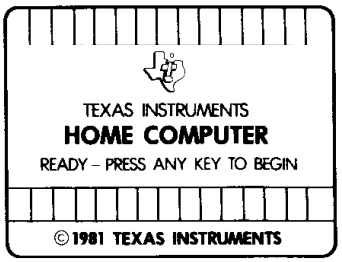
Note: M*A*S*H is designed to work with or without the Texas Instruments Solid State Speech™ Synthesizer (sold separately). However, the Speech Synthesizer must be attached to activate the voice of the computer.

Using the Solid State Cartridge

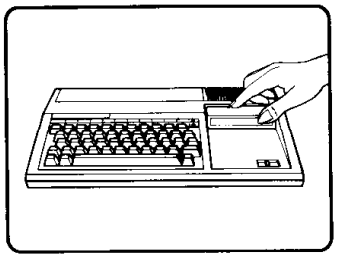
Inserting Solid State Cartridges is easy. If you have any problem inserting the cartridge, or if it is accidentally removed from the slot while in use, please see the "In Case of Difficulty" section in this booklet.

Inserting the Cartridge

1. If you have been programming in BASIC, save your data before inserting a cartridge. When you insert a cartridge into the console, the computer automatically erases all data or program material you have entered and returns to the master title screen to begin the new program.
2. Be sure the cartridge is free of static electricity before inserting it into the computer (see the "Maintenance and Service" section in this booklet).
3. Turn the computer ON, and wait for the master title screen to appear.



4. Slide the cartridge into the slot on the console.



5. Press any key to make the master selection list appear. Then, press the appropriate number key for your selection.

Removing the Cartridge

1. To remove the cartridge at the end of play, press **QUIT** to return to the master title screen.
2. Remove the cartridge from the slot.

Game Options

M*A*S*H offers five exciting versions of play for more fun. In each of the five versions, the first player to reach a score of 4077 wins.

Rescue with Tank Fire and Surgery

In the first part of the game, a tank fires on your helicopter as you fly to rescue wounded soldiers in the field. After 18 soldiers are picked up, the scene shifts to the operating room of M*A*S*H. There you operate to save the lives of your patients.

Rescue with Cease Fire and Surgery

In the first part of the game, you rescue wounded soldiers during a Cease Fire. As you fly to save the soldiers, the tank continues to patrol menacingly, but does not fire. After 18 soldiers are picked up, you move to the M*A*S*H operating room where your surgeon's skills are necessary to save the patient.

Rescue only with Tank Fire

You rescue the wounded as a tank fires on your helicopter. (Surgery does not follow automatically.)

Rescue only with Cease Fire

You rescue the wounded during a Cease Fire. (Surgery does not follow automatically.)

Surgery only

You operate to save the wounded.

Player Options

M*A*S*H allows you to play against the computer or with a friend. After you select the game you want, you then indicate the number of players.

One-Player Games

If you choose a one-player Rescue game, the computer plays the game as Trapper John (blue helicopter and landing pad), and you play the game as Hawkeye Pierce (red helicopter and landing pad).

If you choose a one-player Surgery game, the computer does not perform surgery but gains points for each second you operate and for each unsuccessful operation. In one-player Surgery, the scalpel appears on the left side of the screen and you begin surgery there. At the top of the screen, a score counter records your successes.

Two-Player Games

If you choose a two-player Rescue game, you can be either Trapper John (blue helicopter and landing pad) or Hawkeye Pierce (red helicopter and landing pad).

If you choose a two player Surgery game, Hawkeye uses the left-hand scalpel and Trapper, the right-hand. Hawkeye goes first every time, and each player has 30 seconds to remove the shrapnel. A time clock and score counter located at the top of the screen show your success.

Getting Started

When the M*A*S*H title screen appears, press any key to begin. Follow the directions displayed on the screen to begin to play M*A*S*H.

When the selection list appears, you see these choices:

- Rescue with tank fire and surgery
- Rescue with cease fire and surgery
- Rescue only with tank fire
- Rescue only with cease fire
- Surgery only

Making Your Game Selection

Move the long white band up or down until it is over the desired game.

- When using left-side keyboard control, press the **E** key (↑) or the **X** key (↓) to position the long white band. When using right-side keyboard control, press the **I** key (↑) or the **M** key (↓).
- When using Wired Remote Controllers (joysticks), move the joystick lever forward or backward.

Making Your Player Selection

Move the short white band to the left or right until it is over the desired number of players.

- When using left-side keyboard control, press the **D** key (→) or the **S** key (←) to position the short white band. When using right-side keyboard control, press the **K** key (→) or the **J** key (←).
- When using the Wired Remote Controllers (joysticks), move the joystick lever left or right.

To Begin the Game

Once you have made your selections, you are ready to begin the game.

- When using left-side keyboard control, press **Q** or **V** to begin play. When using right-side keyboard control, press **Y** or . to begin.
- When using the Wired Remote Controllers (joysticks), press the **FIRE** button on the controller to begin play.

To Pause in the Middle of a Game

To pause during a game, press and hold the **P** key. "R&R" flashes at the top of the screen. Press any key to resume the game.

To Play Again

At the end of a game, either press **REDO** to play again or wait for the game to begin again automatically.

Controlling Action from the Keyboard

You move the helicopter in the Rescue game and the scalpel in the Surgery game by using the same keys. The helicopter has additional movements. You can raise and lower it for take-off and landing.

Helicopter and Scalpel Movements

Control the movement of the helicopter in the air and of the scalpel during the operation by using these keys.

Keys	Direction on the screen
(↑) **E** (↑) **I**	Up
(←) **S** (←) **J**	Left
(→) **D** (→) **K**	Right
(↓) **X** (↓) **M**	Down

Special Helicopter Movements

Raise the helicopter from the ground and lower it for landing by using these keys.

Keys	Direction from the "ground"
(↑) **R** (↑) **O**	Raises the helicopter
(↓) **C** (↓) **,**	Lowers the helicopter

Note: On the keyboard, the left-side keys control the red helicopter (Hawkeye), and the right-side keys control the blue one (Trapper).

Note: These special keys for helicopter movement do not work with the scalpel.

Controlling Action with the Wired Remote Controllers

You use the lever of the Wired Remote Controllers to move both the helicopter and the scalpel.

Helicopter and Scalpel Movements

Use the same position of the lever to move the helicopter or the scalpel up, down, left, or right on the screen. For up, down, left, or right diagonal movement, simply move the lever in the desired direction.

Lever Position	Direction on the screen
Forward (toward the **FIRE** button)	Up
Backward (away from the **FIRE** button)	Down
Right	Right
Left	Left
Diagonal	Diagonal

Special Helicopter Movements

You can "lift" the helicopter up and down for take-off and landing. Raise the helicopter from the ground and lower it for landing by pressing the **FIRE** button and moving the lever in the direction you want to go.

Lever Position	Direction from the "ground"
Forward (toward the **FIRE** button)	Raises the helicopter
Backward (away from the **FIRE** button)	Lowers the helicopter

Note: The **ALPHA LOCK** must be in the OFF (up) position when using the Wired Remote Controllers.

Playing the Rescue Game Option

To win when playing the Rescue game option in M*A*S*H, you must use your helicopter to pick up more wounded soldiers than your opponent.

Rescuing Wounded Soldiers

1. Fly your helicopter to one of the soldiers and place the helicopter's shadow over the soldier. (The shadow can cover the wounded soldier either partially or completely.)

2. Lower the helicopter to the shadow, and the wounded soldier disappears.

3. Raise the helicopter to rescue the soldier.

4. Fly either to the next wounded soldier or return to the M*A*S*H base. You can pick up a maximum of five wounded soldiers before your helicopter is full. **Note:** If you try to rescue a wounded soldier when your helicopter is full, the wounded soldier remains visible.

Unloading Wounded Soldiers

1. You can return to base with a minimum of one or a maximum of five soldiers. **Note:** When your helicopter is full, it changes color. You must then return to the landing pad to unload. After unloading, the helicopters return to their usual colors.

2. Fly to your landing pad. **Note:** You cannot unload wounded soldiers at your opponent's landing pad.

3. Maneuver the shadow to the landing pad, and lower your helicopter. A beep signifies that you've successfully unloaded, and the point value in the block at the top of the screen increases by three.

4. Raise your helicopter from the landing pad and fly back to rescue more wounded.

Helicopter Flight

When a helicopter is touching the "ground" (its shadow), it cannot move.

Raise the helicopter to its fullest height to clear trees. (The helicopter stops when its shadow is even with the base of a tree, except when it is raised to its fullest height.)

The two helicopters do not collide, but automatically pass each other on different flight patterns.

Continuing Play

At the beginning of a Rescue game, six wounded soldiers appear in the field. After all six soldiers are picked up, six more appear in the field.

If you are playing a Rescue game only, this pattern continues until one player earns 4077 points and wins the game.

If you are playing a Rescue game combined with a Surgery game, the Surgery game option begins when a total of 18 soldiers have been picked up. **Note:** Following the Surgery segment of the game, the Rescue game begins again and both players start from their landing pads with empty helicopters.

Tank Fire or Cease Fire

You can play the M*A*S*H Rescue game either with Tank Fire or during a Cease Fire.

Cease Fire

During Cease Fire, the tank moves left and right across the bottom of the screen, but does not fire.

Tank Fire

You can increase the difficulty of the Rescue game by selecting the Tank Fire option. The tank moves left and right across the bottom of the screen and fires upward toward the helicopters. If the tank shoots your helicopter, you lose the points for all rescued soldiers aboard and are automatically returned to the landing pad. **Note:** The tank chases the helicopter with the higher score.

Playing the Surgery Game Option

To win when playing the Surgery Game option in M*A*S*H, you must use your operating skills to remove shrapnel successfully and score more points than your opponent.

Operating Successfully

1. Move your scalpel next to the shrapnel.
2. Move the tip of the scalpel forward or backward until the scalpel is "attached" to the shrapnel.
3. Move the shrapnel carefully through the maze toward one of the exits.
4. When you reach an exit,
   - You hear a tone indicating the operation is complete
   - The patient smiles
   - You receive the points for your successful operation
   - The scalpel returns to its starting place
   - Another piece of shrapnel appears in a different area of the body
5. Try as many "operations" as possible in the time remaining.

Operating Unsuccessfully

If you touch any part of the body,

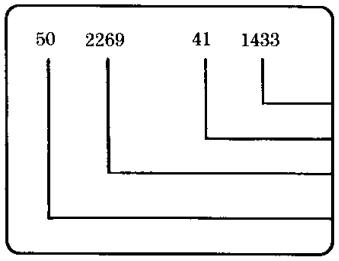
- You hear a tone indicating an unsuccessful attempt
- The patient frowns
- Your opponent receives the points for that operation
- The scalpel returns to its starting place

Note: You can try again if you have time remaining on the time clock.

The Scoring Screens in M*A*S*H

In both the battlefield scene and the operating room of the M*A*S*H base, important score information is recorded at the top of the screen. These sample scoring blocks show how your score is displayed for each game.

In Rescue games, the numbers at the top of the screen are the points awarded for each soldier rescued (from 5 to 50 points) and the total score for the game (0 to 4077).



Rescue Game Screen

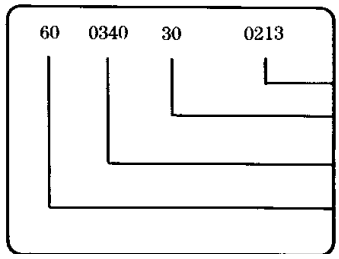
Trapper's score

Point value

Hawkeye's score

Point value

In surgery games, the numbers at the top of the screen are the point value for the operation (20 to 80 points), the total score for the game (0 to 4077), and, in the center of the screen, the seconds remaining for operations (0 to 30).



Surgery Game Screen

Trapper's score

Seconds remaining

Hawkeye's score

Value of operation

Note: In this example, Trapper does not have a value listed for the operation because these numbers appear only for the person operating. The time clock is also not displayed in one-player games against the computer.

Scoring in M*A*S*H

In all games, the first player to reach a score of 4077 wins.

Point Values for Rescues

Your point value for each soldier rescued increases as you make more deliveries to the M*A*S*H base. Following each successful delivery to the M*A*S*H base, the point value for each soldier rescued increases by three points from a minimum of 5 to a maximum of 50 points.

Delivery Number	Points Per Soldier	Delivery Number	Points Per Soldier
0	5	8	29
1	8	9	32
2	11	10	35
3	14	11	38
4	17	12	41
5	20	13	44
6	23	14	47
7	26	15	50

The frequency of delivery is a matter of strategy, depending on factors such as how close you are to the landing pad, whether the Surgery segment is about to begin, and so on. If you pick up and deliver one soldier at a time, you increase your point value rapidly. However, you may save time by picking up several soldiers on each flight.

Scoring with Tank Fire

If the tank shoots your helicopter, you lose the scores for all rescued soldiers aboard. Your helicopter automatically returns to the landing pad, and you begin again.

Point Values for Operations

In playing Surgery games, the value of each operation depends upon the location of the shrapnel. The values range from 20 to 80 points.

If you touch any part of the body, the points for that operation go to your opponent.

In a one-player game of Surgery only, the computer scores five points every second you play and gains points from your unsuccessful operations.

When a Player Wins

The first player to score 4077 wins the game. At the end of the game, a "Welcome Home" screen with a map of the United States and Korea appears. The winner flies by helicopter from Korea across the Pacific Ocean to the United States.

Maintenance and Service

Caring for the Cartridge

These cartridges are durable devices, but they should be handled with the same care you would give any other piece of electronic equipment. Keep the cartridge clean and dry, and don't touch the recessed contacts.

Caution: The contents of a Solid State Cartridge can be damaged by static electricity discharges.

Static electricity build-ups are more likely to occur when the natural humidity of the air is low (during winter or in areas with dry climates). To avoid damaging the cartridge, just touch any metal object (a doorknob, a desklamp, etc.) before handling the cartridge.

If static electricity is a problem where you live, you may want to buy a special carpet treatment that reduces static build-up. These commercial preparations are usually available from local hardware and office supply stores.

In Case of Difficulty

If the cartridge activities do not appear to be operating properly, return to the master title screen by pressing **QUIT**. Withdraw the cartridge, align it with the cartridge opening, and reinsert it carefully. Then press any key to make the master selection screen appear. (**Note:** In some instances, it may be necessary to turn the computer off, wait several seconds, and then turn it on again.)

If the cartridge is accidentally removed from the slot while the cartridge contents are being used, the computer may behave erratically. To restore the computer to normal operation, turn the computer console off, and wait a few seconds. Then reinsert the cartridge, and turn the computer on again.

If you have any difficulty with your computer or cartridge, please contact the dealer from whom you purchased the unit and/or cartridge for service directions.

Additional information concerning use and service can be found in your *User's Reference Guide*.

Three-Month Limited Warranty Home Computer Software Cartridge

Texas Instruments Incorporated extends this consumer warranty only to the original consumer purchaser.

Warranty Coverage

This warranty covers the electronic and case components of the software cartridge. These components include all semiconductor chips and devices, plastics, boards, wiring and all other hardware contained in this cartridge ("the Hardware"). This limited warranty does not extend to the programs contained in the software cartridge and in the accompanying book materials ("the Programs").

The Hardware is warranted against malfunction due to defective materials or construction. **This warranty is void if the Hardware has been damaged by accident, unreasonable use, neglect, improper service or other causes not arising out of defects in materials or workmanship.**

Warranty Duration

The Hardware is warranted for a period of three months from the date of the original purchase by the consumer.

Warranty Disclaimers

Any implied warranties arising out of this sale, including but not limited to the implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the above three-month period. Texas Instruments shall not be liable for loss of use of the Hardware or other incidental or consequential costs, expenses, or damages incurred by the consumer or any other user.

Some states do not allow the exclusion or limitation of implied warranties or consequential damages, so the above limitations or exclusions may not apply to you in those states.

Legal Remedies

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

Performance by TI Under Warranty

During the above three-month warranty period, defective Hardware will be replaced when it is returned postage prepaid to a Texas Instruments Service Facility listed below. The replacement Hardware will be warranted for three months from date of replacement. Other than the postage requirement, no charge will be made for replacement.

TI strongly recommends that you insure the Hardware for value prior to mailing.

Texas Instruments Consumer Service Facilities

U.S. Residents:

Texas Instruments Service Facility
P.O. Box 2500
Lubbock, Texas 79408

Canadian Residents:

Texas Instruments Consumer Service
41 Shelley Road
Richmond Hill, Ontario, Canada
L4C5G4

Consumers in California and Oregon may contact the following Texas Instruments offices for additional assistance or information.

Texas Instruments Consumer Service
831 South Douglas Street
El Segundo, California 90245
(213) 973-1803

Texas Instruments Consumer Service
6700 Southwest 105th
Kristin Square, Suite 110
Beaverton, Oregon 97005
(503) 643-6758

Important Notice of Disclaimer Regarding the Programs

The following should be read and understood before purchasing and/or using the software cartridge.

TI does not warrant that the Programs will be free from error or will meet the specific requirements of the consumer. The consumer assumes complete responsibility for any decision made or actions taken based on information obtained using the Programs. Any statements made concerning the utility of the Programs are not to be construed as express or implied warranties.

Texas Instruments makes no warranty, either express or implied, including but not limited to any implied warranties of merchantability and fitness for a particular purpose, regarding the programs and makes all programs available solely on an "as is" basis. In no event shall Texas Instruments be liable to anyone for special, collateral, incidental, or consequential damages in connection with or arising out of the purchase or use of the programs and the sole and exclusive liability of Texas Instruments, regardless of the form of action, shall not exceed the purchase price of the software cartridge. Moreover, Texas Instruments shall not be liable for any claim of any kind whatsoever by any other party against the user of the programs.

Some states do not allow the exclusion or limitation of implied warranties or consequential damages, so the above limitations or exclusions may not apply to you in those states.

Quick Reference Guide

TI-99/4A

(←) **S** (→) **D** (↑) **E** (↓) **X**	Controls the movement of the helicopter or scalpel from the left side of the keyboard. These keys also help you position the white bands for player and game options.
(←) **J** (→) **K** (↑) **I** (↓) **M**	Controls the movement of the helicopter or scalpel from the right side of the keyboard. These keys also help you position the white bands for player and game options.
(↑) **R** (↓) **C**	Raises and lowers the helicopter from the left side of the keyboard. These keys also help you position the white bands for player and game options.
(↑) **O** (↓) **,**	Raises and lowers the helicopter from the right side of the keyboard. These keys also help you position the white bands for player and game options.
Q or **V**	Begins a game from the left side of the keyboard.
Y or **.**	Begins a game from the right side of the keyboard.
P	Stops the game temporarily.
FCTN 7 or **7** **(AID)**	Takes you to "Helpful Hints" for playing the game when AID appears on the screen.
ENTER	Returns you to the M*A*S*H selection list from "Helpful Hints."
FCTN 8 or **8** **(REDO)**	Press and hold to start a new game when REDO appears on the screen.
FCTN 9 or **9** **(BACK)**	Press and hold to return to the M*A*S*H selection list when BACK appears on the screen.
FCTN = **(QUIT)**	Returns to the master title screen.

For rapid play, M*A*S*H allows you to press the number key without the **FCTN** key for **AID**, **REDO**, and **BACK**.

The **ALPHA LOCK** must be in the OFF (up) position when using the Wired Remote Controllers.

Note: If the optional Wired Remote Controllers (joysticks) are used, eight directions are available to maneuver the helicopter or scalpel; simply move the lever in the desired direction.

TEXAS INSTRUMENTS
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Dallas, Texas

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